313 the small industries of the remoter upland districts. It is particularly important in the wood and pulp and paper industries, and in the small textile and pottery works. Charcoal is still used for smelting.

377 ELECTRICITY is mainly generated thermally, in spite of the great potentialities of water-power provided by the rivers from the Carpathians, not to mention the Danube current. Lack of natural reservoirs in snow-field, glacier and lake means that exploitation of the hydro-electric resources would entail enormous capital expenditure in the construction of reservoirs. The sum total of direct water-power used must, however, be very great, for the number of water-wheels is legion.

317 SALT is another asset of real importance. Like the mineral oil, it is found in greatest abundance, and is most accessible, in the upper Tertiary deposits of the sub-Carpathians, in the region of greatest disturbance. Sometimes it is exposed in cliffs, sometimes it is covered with thin layers of loam. Salt mines are being worked at Slanic, at Targu-Ocna (Tergu Ocnei) in the Trotuş basin, and at Ocnele-Mare (Ocna) on ●316 the Olt. In 1932 the amount extracted was 288,000 metric tons, of which 240,500 tons were for home consumption, the rest being exported to the Balkan countries and to Russia. Salt mining and marketing are state monopolies.

IN iron ore Roumania is not rich, the output being only about 90,000 tons per annum. The most important deposits lie in the mountains of the Banat and in the Poiana Ruscai (Ruszka) massif farther north, between the Mureş and the Bistra (Bisztra) tributary of the Timiş (Temes). The Reciţa (Reciţa Montana) district in the Banat mountains, opening towards Hungary, has foundries and steel works employing about 15,000 hands.

WITH the recent rise in the price of gold, the mining of that metal, which formerly was almost negligible, has become more active, and the output reached nearly 4,000 kgs. in 1933. The ore is mined in the Trachyte massif of the Bihor.

433 IN SPITE of considerable advantages in natural resources, and solicitous nursing on the part of the State, particularly in the Old Kingdom, industry in Roumania is still in its

vested in it and the high contribution it is expected to make to the revenue of the State. The average price in lei of petroleum products per ton during the years 1928–31 were as follows, as reported by the Constantsa *Chamber of Commerce Bulletin*: 1928, at 4,080; 1929, at 3,800; 1930, at 2,600; 1931, at 1,031 lei. The following table, which gives quotations of the leading oil shares on the Bucarest stock market, is indicative of the depression which exists:

Average annual quotations

Share	1929	1930	*June* 1931	*June* 1932
Astra Romana ...	2391	1430	500	340
Steaua Romana ...	1234	571	230	135
Speranța	1210	639	380	100
Petrol Block ...	320	176	75	54
Concordia	1286	767	265	250
Creditul Minier ...	690	364	185	90
Redevența	321	182	65	30
I.R.D.P.	397	143	92	35

The other mineral resources of Rumania are considerable, especially in Transylvania, but no proper geological survey has ever been made, nor have any mines other than salt mines ever been properly exploited. The following figures give the quantities of minerals mined during 1930, the total value of the same being estimated at 10,437 million lei: Lignite, 2,071,057 tons; coal, 298,825 tons; copper, 6,655 tons and 169; iron, 92,517 tons; manganese, 33,528 tons; bauxite, 678 tons; pyrites, 24,264 tons; amber, 107 tons; salt, 304,777 tons; lead and antimony, 984 tons; lead glaze, 194 tons; gold, 2,672 kilograms, silver, 4.418 kilograms.

Lignite is found in extensive beds not only in Transylvania and the Banat but also in the old kingdom. It is mainly used for the railways. The better qualities of coal are found in south-western Transylvania and the Banat. Copper is principally mined at Tulcea, near the mouth of the Danube, and at Ciuc in Transylvania.

[The Banat]

[The Crisana]

The high quality of the crops in this province, amongst them wheat, maize, rye, oats, and the high standard of animal breeding, have made the Banat known far beyond the borders of Rumania. The fertility of the soil is due partly to the 'black earth' which, in a greater or lesser degree, is a component of all the arable land. Apart from being an important agricultural region, the Banat possesses valuable industries, forests and minerals. Iron ore and coal are mined in the area of Resita and Anina, where there are great iron and steel works which produce railway equipment and armaments. The Danubian port of Orsova, guarding the western entrance to the 'Iron Gates', also has an oil refinery.

The capital of the Banat is Timisoara[R] (Temesvar[H]) on the Bega with a population of 100,000. In Roman times the fortress of Ripensia was situated here. In Hunyadi's time it was a centre of resistance against the Turks, only second in importance to Belgrade. To-day the town is a great rail and road junction with many factories, banks, commercial houses and cultural institutions. Lugoj, on the Timis, with a population of 20,000, and Caransebes, north of the Porta Orientalis which leads through the mountains of the Banat to the Danube, are marketing towns of some importance.

THE CRISANA AND MARAMURES. Geographically the Crisana is the eastern borderland of the Hungarian plain. The province covers an area of about 8,400 square miles and has a population of just under 1,500,000. The Crisana lies between Transylvania in the east, the River Mures (Maros[H]) in the south; Hungary (as reduced by the Treaty of the Trianon) in the west and Czechoslovakia in the north.

12: Kormos S-4, 5 (no date) 1944
ED1 Rumania ED1

MINERAL RESOURCES. The great and varied wealth of the subsoil of Greater Rumania has been exploited only to a small degree. Apart from gold and silver, which are found in rivers and mined in Transylvania, there are iron-ore deposits estimated at about 30,000,000 tons. The average yearly production, however, amounted to only about 100,000 tons. The important alloy, manganese, found in various parts of the country, copper, zinc, chromium and bauxite all contribute to the mineral wealth of Rumania.

Through the acquisition of the New Territories the coal deposits of Greater Rumania were greatly augmented. The total coal reserves, of which the most important are situated in the western provinces and in Transylvania, were estimated at 722,000,000 tons. The average yearly production, of which two-thirds were brown coal, amounted to between 2,000,000 and 3,000,000 tons. A source of power which is not found in any other part of Europe, and which could transform and sustain Rumanian industry for many years, is the great subterranean natural gas reservoir in Transylvania which contains chemically pure methane.

Another source of energy of which only a small fraction has yet been exploited is Rumania's potential water power, estimated at 1,500,000 horsepower, which equals the energy of all the coal, oil and natural gas resources of Rumania taken together.

OIL. The centre of the Rumanian oilfields is the region of Campina and Ploesti which also has the biggest refineries for the production of petrol and aviation spirit. Oil is also found in Oltenia, Moldavia and Maramures. Crude oil was already known

I. COAL

A. Consumption, Imports, Deposits

372 375 Coal has not played such a large part in Rumanian economy as it has in that of most European countries because of the abundant mineral oil and timber resources which have been used extensively for fuel, both in industry and for household purposes. The following table shows the percentage consumption of the different types of fuel (average 1937-39) :—

	%
Firewood	28·7
Oil and oil products	26·1
Coal	25·9
Methane and other gases	17·2
Water power	2·1

The railways accounted for 60 per cent. of total coal consumption which was of the order of 2 million tons, the balance being divided between industry, household consumption and bunkers.

135 Before the war coal reserves, which are predominantly brown coal, were estimated at 2·7 milliard tons brown coal (including lignite), and 48 million tons of hard coal. The more important deposits are located in southern and western Transylvania, while a few of lesser importance are in the northern area which was ceded to Hungary.

316 439 In spite of the limited industrial development of the country and extensive use of oil, coal production is hardly sufficient for current needs, and it has been necessary to import both coal and coke to fill the deficiency.

Pre-war coal imports in metric tons were as follows :—

	Metric Tons
1935	21,000
1936	23,000
1937	28,000

316 439 It is difficult to estimate coal imports since the war, but available evidence suggests that they are in the neighbourhood of 75,000 tons annually or three times as high as the pre-war figure. Owing to the exigencies of war, railway traffic has increased enormously, and the switch-over from oil-burning to coal for industrial and central-heating plants all add to the demands for coal.

135 **Coal Deposits**

The principal coal-producing district is around Petroşani, while the main deposits are as follows:—

Type	*Location*	*Calorific Value*
Anthracite ..	Schela in Gorj district	7,300
Hardcoal* ..	Reşiţa and Anina-Steierdorf	6/7,000
Brown coal and lignite	Jiu valley	6,500
	Comăneşti basin ..	5,200/5,600
	Ialomiţa valley ..	5,000
	Dâmboviţa valley ..	5,000
	Bacău district ..	5,000

* Some is suitable for coking.

B. Tables

1. Coal Production

316 During recent years coal production has been increased in spite of a slight setback in 1940, when with the transfer of N. Transylvania to Hungary a small proportion of the working mines were lost. Further efforts are being made to increase production so that fuel-oil consumption may be reduced. To this end the conversion of central-heating installations, industrial oil-burning plant and oil-fired locomotives to coal burning has been ordered.

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COAL PRODUCTION

	Brown Coal	%	Hard Coal	%	Lignite	%	Anthracite	%	Total
1930 ..	1,799,877	75·9	298,825	12·6	271,180	11·5	—	—	2,369,882
1935 ..	1,453,394	74·7	261,085	13·4	213,367	11·0	17,207	0·9	1,945,053
1938 ..	1,822,128	76·1	290,575	12·3	274,870	11·5	3,265	0·1	2,390,538
1939 ..	1,904,834	77·4	282,006	11·4	237,710	11·1	4,400	0·1	2,428,950
1940 ..	2,384,586*	—	260,985†	—	—	—	—	—	2,645,571
1941 ..	2,317,138*	—	229,703†	—	—	—	—	—	2,546,841

* Including lignite. † Including anthracite.

2. Location of Collieries

LOCATION OF PRINCIPAL COLLIERIES IN ORDER OF IMPORTANCE

	Annual Production		
	Coke	Briquettes	Coal
1. *"Petroşani" S.A. Română pentru Exploatarea Minelor de Cărbuni*—			
Pits at Petrilla and Aninoasa near Lupeni	—	—	1,500,000
At Petrilla there are also a low-temperature carbonisation plant capable of producing 20,000 tons annually and briquetting plant capable of producing	—	100,000	—
2. *Uzinele de Fier şi Domeniile din Reşiţa S.A.*—			
Pits at Anina, produce coal similar to Pecz (Hungary) coal; modern installations	—	—	200,000
Washeries, briquette factory and coke ovens	86,000	50,000	—
The *Doman* mines near Reşiţa produce coal similar to Pecz (Hungary) coal	—	—	50,000
The *Secul* mines near Reşiţa produce coking coal	—	—	25,000
3. *" Creditul Carbonifer " S.A. Miniera*, near Comăneşti, produce—	—	60,000	200,000
4. *" Lonea " S.A.R. pentru exploatarea minelor de cărbuni* owns collieries in Hunedoara basin in Jiu valley and produces ..	—	—	100,000
5. There are also a number of smaller colliery companies and a small mine at Gorj producing anthracite	—	—	3,000

[17d]

CHAPTER III

316
439

3. Coke Imports and Production

	Imports	*Production**
	in '000 tons	
1936	39	78
1937	49	78
1938	63	86
1939	55	88
1940	54	86
1941	n.a.	90

* Including gas coke.

Of the total coke available annually—140,000 tons—100,000 tons were consumed by blast-furnaces and iron-works, the remaining 40,000 by other industries.

II. ELECTRIC POWER

A. General

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Being an agricultural country, Rumania, like the other countries of South Eastern Europe, is not extensively developed from the electrical point of view. The most important high-tension transmission lines are located in the neighbourhood of the Prahova oilfields and of Bucarest, but though these two areas are interconnected by means of lines operating at 120 and 60 kV, there is no national grid. There are a few other high or medium-tension lines which mostly connect power stations owned by industrial concerns. The majority of generating stations giving a public supply are quite isolated from each other.

1. Sources of Power

Rumania's potential water-power resources are high. It is estimated that 24,000 million kWh could be obtained annually from the economically

A. INTRODUCTION

135 By comparison with Greece or Yugoslavia Rumania has but poor deposits of minerals, with the exception of gold, as a producer of which, before the loss of Transylvania, she ranked second in Europe to Sweden.

●316 Iron-ore output is inadequate to meet the requirements of the steel industry. Bauxite output is on a very small scale, though steps are being taken to increase this and to create an aluminium industry. Production of lead and zinc, though sufficient pre-war to cover requirements, was centred in territory now ceded to Hungary, so that the country has become dependent on imports. Silver and copper production, the latter never other than on a small scale, have also suffered through territorial losses. Attempts have been made during the last few years to develop output of chrome and manganese—manganese for production of ferro-manganese for the iron and steel industry, and chrome, deposits of which appear not to have been worked before 1941, for export to Italy.

135 Deposits of mica and molybdenum have both been recently discovered in small quantities in the Méhedinți district, and the Germans are particularly interested in production of the former.

B. IRON AND STEEL

327 Full use of the Rumanian iron and steel industry is severely hampered by inadequate supplies of metallurgical coke and of iron ore, both of which have to be imported. Shortage of the former particularly has affected the industry since the outbreak of war, because, due to an insufficient supply of metallurgical coke in German Europe as a whole, Rumania has been unable to import the requisite quantities to maintain output of her blast-furnaces. Rumanian plants, however, are new and the steelworks are all open-hearth or electric, which means that they are able to produce the qualities most useful for armaments.

1. Iron Ore

316 Shortage of iron ore is the fundamental weakness of the Rumanian iron and steel industry. Though various other concessions have been granted, but not yet in any way developed, only three mines have been regularly exploited, as follows:—

(a) The Ghelari deposits of limonite (47 per cent. to 54 per cent. iron) owned by the State and exploited by the Hunedoara Works.

(b) The Teliuc deposits of limonite (48 per cent. to 52 per cent. iron) and of siderite (28 to 35 per cent iron), owned and exploited by Titan Nadrag Calan.

(c) The almost exhausted Ocna de Fier deposits of poor quality limonite owned by Reșița.

316 439 Rumania has always had to import ore, chiefly from Yugoslavia, and recently from the Russian mines of Krivoi Rog as well. The following table shows Rumanian output and imports of iron ore.

Year	*Output*	*Imports*
	'000 tons	
1936	107	80
1937	127	90
1938	137	114
1939	143	90
1940	151	52
1941	106	n.a.

[21b]

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327 compared with the following annual pre-war figures:

Year	'000 tons
1936	225
1937	241
1938	326
1939	385

4. Iron and Steel Consumption

The limited native iron and steel production, which was never sufficient to keep the consuming industries fully supplied, became an increasing impediment with the rapid development of these industries during the last few years. Iron and steel products had therefore to be imported at [435] the rate of 2/300,000 tons a year. The outbreak of war in Europe, and consequent restriction of supplies meant a falling off of imports, so that an acute shortage developed. During 1942 however, the situation improved somewhat in that Germany was reported to have sent a total of 130,000 tons of iron and steel products to Rumania.

5. German Penetration

327 A small degree of penetration into the Ru-
439 manian iron and steel industry has been achieved
473 by the Hermann Göring Werke, which, after the partition of Czechoslovakia, acquired Czech interests in Reşiţa amounting to 6 per cent., which were later increased to 20 per cent.

In 1941 a company with 50 per cent. German and the remainder Rumanian capital, was formed to take over the management of Reşiţa and its associated companies. The Malaxa Works later also came under the organisation of this company.

C. LEAD AND ZINC

1. General

328 In pre-war years Rumania was practically
439 self-sufficient in lead but not in zinc, since she possessed no zinc-smelting facilities. Her production of zinc concentrates was exported, mainly to Poland, part of the metal content being reimported after smelting. Belgium and Poland were her chief suppliers of metallic zinc.

2. Mines and Plant

●316 The mining of lead and zinc constituted only a small industry in Rumania. Part of the production, almost 50 per cent. in the case of lead, was obtained incidentally to the working of gold and silver ores. The principal producers were [659] the State-owned mines Baia Sprie, Capnic, Văratec, Valea Roşie, Dealul Crucii, and the Herja mine owned by Phœnix S.A.; all are situated in the Baia Mare district in North Transylvania. The Herja ores averaged approximately 8 per cent. lead and 14 per cent. zinc, whilst ores from the other mines averaged only 4 per cent. lead and 10 per cent. zinc.

135 There are other deposits in the Transylvanian Erzgebirge, where galena and blende are associated with gold occurrences, in the Hunedoara, Banat, and Severin districts, and at Cârlibaba in the Bucovina.

328 Rumania possessed two lead smelters for the treatment of her production of concentrates: the Phœnix plant at Lucaci, with a capacity for about 5,000 tons of crude lead and 3,000 tons of refined lead, and a plant at Feriza belonging to Uzinele Metallurgica din Firiza de Jos. There

[22 a]

328 was no zinc-smelting capacity until 1940 when the "Sonemin" concern (Societatea Nationala de Exploatări Miniere și Industriale S.A.R.) erected a plant at Copșa Mica with a capacity for 6,000 tons of crude zinc annually. The smelter has three retorts fired by natural gas, treating concentrates first roasted at the Phœnix works.

3. Pre-War Production and Trade

Ore production increased over the years 1934-1938, statistics available are conflicting, but it is certain that 1938 production in terms of lead content was not less than 7,000 tons. Smelter production also increased from 4,000 tons to about 7,000 tons, and averaged about 5,000 tons over the period. Exports and imports of lead were very small.

Ore production in terms of zinc content varied between approximately 4,000 tons and 8,000 tons. The concentrates were all exported, chiefly to Poland. Metallic zinc was imported almost entirely from Belgium and Poland.

The small output of lead and zinc was of little importance other than to Rumania herself.

4. War-time Development

[728] [439] As practically the whole of the Rumanian lead-zinc industry passed to Hungary when she acquired the Baia Mare district under the Vienna Award, Rumania became largely dependent on imports for the satisfaction of her lead and zinc requirements. However, she retained the Transylvanian Erzgebirge and other areas containing lead-zinc deposits, some of which she is now endeavouring to exploit. For instance, it was reported in December 1942 that deposits in the Banat, near Agadici, and in the Hunedoara district, were being developed. The Copșa Mica zinc smelter has remained in Rumanian hands.

D. MICA

316 135 The Germans are taking considerable interest in the mica deposits discovered in the Mehedinți district, though little is believed to be of high quality. The present annual rate of production is estimated to be about 150 tons.

E. BAUXITE

135 Rumania possessed reserves of bauxite situated in the Bihor Massif and estimated by German experts in 1939 at some 40 million tons. The main deposits are located in the Poiana, Crisul Repede and Jad Valleys, and in the Galbina valley south-east of Beiuș. Small deposits exist around Remetea and Bratca, in the district around Pietroasa and near Turda.

31 Despite the size of her ore reserves, Rumania's production of bauxite has never been important, largely because of its unsuitability for the Bayer process, which is mostly operated in European alumina plants. Pre-war ouput never exceeded 10,000 tons annually, and was mostly consumed at home in the manufacture of cement and refractory bricks.

Mining operations were carried on before the war by three companies:—

(a) *Bauxita S.A.R.*, a subsidiary of the Swiss Aluminium Industrie A.G. Chippis which owned mines at Dobrești and produced small quantities of bauxite for the Rumanian cement industry.

[226]

●316 (b) *Alumina S.A.R.*, a subsidiary of the German-controlled Bauxit-Trust A.G. of Zurich, which mined bauxite principally at Bratca in the Jad valley, and also owned concessions at Remetea and Pietroasa.

(c) *Aur S.A.R.*, a subsidiary of the Rumanian Mica Group, owning bauxite properties in the Sohodol region near the railway from Abrud to Turda. It supplied bauxite for the manufacture of cement and at the outbreak of war had reserved stocks for a projected alumina and aluminium plant.

The Dobrești mines of the Bauxita S.A.R., which are within the present Rumanian frontiers, are producing at the rate of 10,000 tons annually, most of which is delivered to Germany.

F. ALUMINIUM

328 Rumania possessed no aluminium industry before the war although from time to time plans for an alumina-aluminium works were discussed. A few thousand tons of aluminium, [439] mostly in the form of semi-manufactured or finished products, were imported annually, Germany being the principal source of supply.

Aur S.A.R. have been experimenting in the production of alumina in a small pilot plant near Dicio Sân Martin, using the Seailles process which is claimed to be successful in producing alumina from low-grade bauxites of the type mostly found in Rumania.

This company is planning an aluminium reduction works of 20,000 tons capacity with an alumina plant of 60,000 tons. I.G. Farbenindustrie and the Mica group are interested, and the intention is to supply 20,000 tons of alumina annually to Germany. Up to June 1943 these projects had apparently not progressed beyond the experimental stage.

Small tonnages of aluminium, mostly in the form of semi-manufactures, are being imported from Germany, principally for the Rumanian aircraft industry.

G. CHROME

316 Rumania has reserve of chrome ore estimated at [135] 2 million tons, located at Ogradina and Plavișevița on the Danube near Orșova. These deposits were not worked before 1941, and the output for 1942 is estimated at 5,000 tons. The ore is low grade, the highest chrome content being 40 per cent. Cr_2O_3. Germany is believed to be receiving the greater part of present output.

H. MANGANESE

The pre-war annual output of manganese averaged 40,000 tons (40 per cent. Mn.), and the probable maximum output that could be obtained is 60,000 tons. The ore is located in the Eastern and Southern Carpathians with reserves estimated at 10 million tons, while the principal mines are near Jacobeni. About 30/35,000 tons of manganese ore is available for export, and is now mainly supplied to Italy and Germany, the remainder being used locally in the making of ferro-manganese. The Nitrogen company at Dicio sân Martin are reported to have extended their plant to produce ferro-manganese for supply to Reșița iron and steel works, and to Titan Nadrag Calan.

[23a]

I. COPPER

316 135 Apart from copper ore recovered as a by-product in the mining of gold ores there is no copper-mining industry in Rumania. There are, however, two deposits which have possibilities of future production. They are as follows:-

(a) At Altun-Tepe in the Dobruja, 12 miles south of Tulcea near the Black Sea, is a deposit which is being developed by Credital Minier S.A.R. There are three areas totalling about 5,000 acres and reserves of 400,000 tons of ore averaging 1½ to 3 per cent. copper.

In 1940 development was proceeding very slowly, and it did not appear then that ore production would take place for at least two years.

(b) At Zam, which is about 10 miles from Brad in western Transylvania, there is another deposit. The veins vary from a centimetre to a metre in width, and the grade of ore ranges from ½ a half to 3 per cent. copper. These deposits have been worked on a small scale in the past, but no work is in progress at the present time.

Production of copper ore in Rumania, mainly from operations at various gold mines, is reported to have been 12,420 tons in 1938, and 25,168 tons in 1939.

J. GOLD

The most important area for gold-mining is in the Apuseni mountain district in Central Transylvania. The principal gold deposits lie within an area bounded by Baia De Arieş, Zlatna, Sacaramb and Tebea. The chief mining centre is Brad, the nearby-mines of Muşari, Brodisor and Valea Morii providing most of the production. Other mining centres within the area are Sacaramb, Almaş (Neagris), Roşia Montana, Bucium and Stanija.

The gold-bearing veins of the Apuseni district strike in directions between north-west and north-east and vary from a few millimetres to two metres in width. The lengths of the veins range between 300 and 700 metres and some are worked at depths approaching 600 metres from the surface. The ore is said to average 8 to 12 grammes per ton.

The largest producing company is the Societatea Mica with a production in 1940 of 2,096 kilos, and in 1941 of 2,665 kilos. In 1942, the State gold mines of Roşia Montana and Sacaramb produced respectively 150 and 238 kilos of gold.

Production in the Baia Mare district (now Hungarian) represented about one-third of normal ore output.

316 435 To stimulate gold production in those mines carrying only small values in gold, and also to make up for the loss of output entailed by the transfer of the Baia Mare area in Northern Transylvania to Hungary under the Vienna Award, the premium on gold production in Rumania was increased from the 1st January, 1943. In addition to the fixed basic price of 211.111 lei per kilo, there is now a premium of 189,180 lei per kilo for ore produced with a gold content of 15 grammes per ton rising to 656,380 lei per kilo for ore with a gold content of 3 grammes per ton or less. This has led to considerable prospecting for new gold deposits in various parts of the country.

K. SILVER

316 Over pre-war years Rumania ranked **sixth**, or when the Italian production was greater seventh,

[23b]

CHAPTER IV

●316 among European producers of silver. Although imports and exports of silver were irregular, and show no marked trend, it seems certain that production was adequate to meet requirements. Imports were mainly in the form of coinage, minted in London and Paris.

1. Mines and Plant

There were no mines exploited exclusively for silver and the output was to a considerable extent closely related to that of gold, with which it frequently occurs in association with copper and or lead, zinc, pyrites, etc. Hence the geographical distribution of the main silver-producing areas was almost identical with that of gold. There were two principal districts, the "Triangle of Gold" around Brad, Abrud, Zlatna in the province of Alba, and the Baia Mare district.

The larger gold mines were all considerable producers of silver, although the very largest silver producers, the Herja, and the State-owned Baia Sprie mine both in the (Baia Mare district) were only insignificant gold producers.

328 The Rumanian production of argentiferous ores was treated by refineries at Baia Mare and Zlatna and at the Phœnix refinery at Satu Mare, all of which are in the area ceded to Hungary.

2. Pre-War Production

Silver production increased at a much higher rate than gold production over pre-war years; 1937 silver output was nearly double that of 1935, and more than four times as great as that of 1932. However, there was a considerable fall from 824,480 in 1937 to 502,890 troy ounces (metal in ore), in 1938.

3. War-time Developments

728 316 A Rumanian authority has estimated that with the loss of the Baia Mare (Nagybanya) area under the Vienna Award, Rumania was deprived of as much as 87 per cent. of her silver production. Efforts are being made, however, to increase production from the considerable deposits still remaining under Rumanian control. Increased premiums are also being paid on silver mined as from the 1st January, 1943.

CHAPTER XI

463 438 industrial labour. One-third of all workers engaged in industry are independent artisans, on whom the community is dependent for its services, but who do not play any important part in war production. In certain of the larger armament works German controllers have effected a considerable degree of rationalisation.

3. Mining

316 727 There is a shortage of miners: Russian prisoners of war have been employed in mining during 1942. Many miners were reported to have been included in the territory transferred to Hungary.

4. Armament Works

719 464 There is a general shortage of labour in metal and engineering factories, particularly of skilled labour. A 12-hour day was legalised at the beginning of 1942, but it is doubtful if in fact a 12-hour day is ever worked.

5. Timber

313 464 There is a shortage of labour, both for lumbering and for timber manufacture.

6. Textiles and Clothing

464 288 294 The total number of workers in these industries has probably fallen considerably, due to reduction of available raw materials. The delivery of supplies to individual mills seems to be somewhat erratic, and there is evidence of considerable part-time work, for instance in a survey of some 43 factories, in December, 1942, 11 were working full time, 21 on a reduced scale, and 11 at a very reduced scale.

7. Building

499 712 464 The extent of fortification building and general road and rail construction in Rumania is unknown, but in the second half of 1942 there was evidence of a scarcity of general labour for such projects, and of Russian prisoners of war working on rail construction.

438 464 [759] In the other branches of occupation, transport services, etc., there is no evidence of labour shortage, apart from doctors, many of whom have been mobilised for the army.

D. CONTROL OF LABOUR

1. The Youth Labour Service

466 883 A youth labour service founded on the German model was established in March 1941. The leaders were trained in Germany, but it was only in April 1942 that the labour camps began to function. Youths are called up in their 19th–20th year, and the period of service lasts 7 months.

(*See* Part II, Chapter V.B. for further details.)

2. Civil Mobilisation

466 A general civil mobilisation decree was passed in May 1941 by which (1) employment cards were introduced; (2) men and women aged 20-57 were liable to compulsory employment if not employed.

Two subsequent decrees were published in March and May 1943, one for the reorganisation of agriculture, forestry and fishing, and the second for the reorganisation of industry. Each of these decrees gave full powers to the appropriate authorities for the mobilisation and transfer of labour.

In addition to the general labour decrees which have so far had little influence on the labour situation, there have been regional decrees applying to individual localities, e.g. in Bessarabia, in February 1942, all the inhabitants aged 22-70 were called upon for compulsory agricultural labour unless already employed.